

ATTACHMENT 3

Early Site Permit
Scope and Associated Review Criteria for Environmental Report
Primary Source of Review Guidance: NUREG-1555, “Standard Review Plans for
Environmental Reviews for Nuclear Power Plants” (1999)

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Primary Review Branch: RLEP				
Introduction to the Environmental Impact Statement	RLEP	None	1.0	
The Proposed Project	RLEP	None	1.1	
Status of Reviews, Approvals, and Consultations	RLEP	None	1.2	
Environmental Description	RLEP	SPSB	2.0	
Station Location	RLEP	SPSB	2.1	
Land	RLEP	SPSB	2.2	
The Site and Vicinity	RLEP	SPSB	2.2.1	
Transmission Corridors and Offsite Areas	RLEP	None	2.2.2	
The Region	RLEP	SPSB	2.2.3	
Water	RLEP	EMEB	2.3	
Hydrology	RLEP	EMEB	2.3.1	Also consider requirements of Section 404 of the Clean Water Act.
Water Use	RLEP	EMEB	2.3.2	Also consider requirements of Section 404 of the Clean Water Act.
Water Quality	RLEP	EMEB	2.3.3	
Ecology	RLEP	None	2.4	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Terrestrial Ecology	RLEP	None	2.4.1	
Aquatic Ecology	RLEP	None	2.4.2	
Socioeconomics	RLEP	SPSB	2.5	
Demography	RLEP	SPSB	2.5.1	
Community Characteristics	RLEP	None	2.5.2	
Historic Properties	RLEP	None	2.5.3	Section 800.3 of the revised National Historic Preservation Act (NHPA) strengthened need for early identification and contact with Tribes/others. To reflect revision, insert following wording on pg. 2.5.3-3, "Acceptance criteria:" - add new paragraph to the first bullet stating "The revisions to NHPA require early consultation with any Indian tribe that attaches religious and cultural significance to resources or properties that may be affected by an undertaking."
Environmental Justice	RLEP	SPSB	2.5.4	Revise reference to Office Letter 906 to Office Instruction LIC-203.
Geology	RLEP	EMEB	2.6	
Meteorology and Air Quality	RLEP	SPSB	2.7	
Related Federal Project Activities	RLEP	None	2.8	
Plant Description	RLEP	None	3.0	
External Appearance and Plant Layout	RLEP	None	3.1	
Reactor Power Conversion System	RLEP	None	3.2	
Plant Water Use	RLEP	EMEB	3.3	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Water Consumption	RLEP	EMEB	3.3.1	
Water Treatment	RLEP	None	3.3.2	
Cooling System	RLEP	None	3.4	
Description and Operational Modes	RLEP	None	3.4.1	
Component Descriptions	RLEP	None	3.4.2	
Radioactive Waste Management System	RLEP	IEHB	3.5	Defer to COL stage unless specific plant design is given.
Nonradioactive Waste Systems	RLEP	None	3.6	
Effluents Containing Chemicals or Biocides	RLEP	None	3.6.1	
Sanitary System Effluents	RLEP	None	3.6.2	
Other Effluents	RLEP	None	3.6.3	Address Solid Waste Disposal Act of 1965.
Power Transmission Systems	RLEP	None	3.7	
Transportation of Radioactive Materials	RLEP	IEHB	3.8	
Environmental Impacts of Construction	RLEP	None	4.0	
Land Use Impacts	RLEP	SPSB	4.1	
The Site and Vicinity	RLEP	SPSB	4.1.1	Includes review criteria for review of redress plan (if submitted).
Transmission Corridors and Offsite Areas	RLEP	None	4.1.2	Includes review criteria for review of redress plan (if submitted).
Historic Properties	RLEP	None	4.1.3	
Water-Related Impacts	RLEP	EMEB	4.2	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Hydrologic Alterations	RLEP	EMEB	4.2.1	
Water Use Impacts	RLEP	EMEB	4.2.2	
Ecological Impacts	RLEP	None	4.3	
Terrestrial Ecosystems	RLEP	None	4.3.1	<ul style="list-style-type: none"> - Section III(2)(a), Page 4.3.1-7, top of page, add bullets- (1) "the cumulative impacts of construction on terrestrial resources," (2) "effects of dust on "important" species," (3) "migration/nesting," and (4) "nuisance species." -Page 4.3.1-7, existing 4th bullet, remove "vertebrates" and insert "animals." -Page 4.3.1-7, last bullet under item (b), change "good practice" to "best management practices."
Aquatic Ecosystems	RLEP	None	4.3.2	<ul style="list-style-type: none"> -Page 4.3.2-7, item (b), insert "or critical habitat" after "endangered species," and before "evaluating." -Page 4.3.2-9, insert new item before issue (n), "Examine cumulative impacts of construction activities on aquatic resources." Page 4.3.2-10, add a new bullet entitled "Evaluate nuisance species" to the bullet list right before "evaluation findings."
Socioeconomic Impacts	RLEP	SPSB	4.4	
Physical Impacts	RLEP	None	4.4.1	
Social and Economic Impacts	RLEP	SPSB	4.4.2	
Environmental Justice Impacts	RLEP	SPSB	4.4.3	Revise reference to Office Letter 906 to Office Instruction LIC-203.
Measures and Controls to Limit Adverse Impacts during Construction	RLEP	None	4.6	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Environmental Impacts of Station Operation	RLEP	None	5.0	
Land Use Impacts	RLEP	SPSB	5.1	
The Site and Vicinity	RLEP	SPSB	5.1.1	
Transmission Corridors and Offsite Areas	RLEP	None	5.1.2	
Historic Properties	RLEP	None	5.1.3	
Water-Related Impacts	RLEP	EMEB	5.2	
Hydrologic Alterations and Plant Water Supply	RLEP	EMEB	5.2.1	
Water Use Impacts	RLEP	EMEB	5.2.2	
Cooling System Impacts	RLEP	None	5.3	
Intake System	RLEP	None	5.3.1	
Hydrodynamic Descriptions and Physical Impacts	RLEP	EMEB	5.3.1.1	Need to address scouring, dredging, turbidity and silt buildup issues. Include consideration of new Environmental Protection Agency (EPA) requirements for intake structures (40 CFR Part 9, §122 through 125 - 66 FR 65256, December 18, 2001).

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Aquatic Ecosystems	RLEP	None	5.3.1.2	<p>Page 5.3.1.2-3, "Acceptance Criteria", first line-change "construction" to "operational"; add "40 CFR Part 9, §122 through 125 - 66 FR 65256, December 18, 2001 with respect to the design requirements of intake structures."</p> <p>-Page 5.3.1.2-5, replace Section III(1) (starting with "Determine whether") with "Determine whether the applicant is in compliance with "NPDES"- regulations addressing cooling water intake structures for new facilities."</p> <p>-Page 5.3.1.2-6, under item (3) change "HIGH, MEDIUM, or LOW" to "LARGE, MODERATE or SMALL."</p> <p>-Page 5.3.1.2-7, change the first bullet to read "Access mortality for all entrained biota, considering the following:" Delete the first bullet under item (7).</p> <p>-Page 5.3.1.2-9, add reference for 40 CFR Part 9, §122 through 125 - 66 FR 65256, December 18, 2001.</p>
Discharge System	RLEP	None	5.3.2	
Thermal Description and Physical Impacts	RLEP	None	5.3.2.1	
Aquatic Ecosystems	RLEP	None	5.3.2.2	
Heat Discharge System	RLEP	None	5.3.3	
Heat Dissipation to the Atmosphere	RLEP	SPSB	5.3.3.1	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Terrestrial Ecosystems	RLEP	None	5.3.3.2	<p>-Page 5.3.3.2-2, under “Data and Information Needs,” insert a new bullet stating “cooling tower design information for noise and aesthetics.”</p> <p>-Page 5.3.3.2-4, in the 4th paragraph, 3rd line, replace “cooling towers” with “elevated structures.”</p> <p>-Page 5.3.3.2-5, include additional consideration: Consider impacts to birds from cooling towers and their operation</p> <ul style="list-style-type: none"> • elevated structures • elevated structure vision obstructed by vapor plume <p>Page 5.3.3.2-6, 5th bullet, insert “small” for the word “minor”; 6th bullet, insert “moderate” for the word “adverse” in the first line of that bullet; 7th bullet, insert “large” for the word “adverse” in the first line of that bullet.</p>
Impacts to Man	RLEP	None	5.3.4	Analysis should include review of microorganisms from heating systems (thermophillic microorganisms). This analysis can be conducted at the ESP stage with adequate information related to the cooling system (type of heat sink) but it will be important to look for new and significant information for issues like thermophillic microorganisms at the COL stage.
Environmental Impacts of Waste	RLEP	None	5.5	
Nonradioactive Waste System Impacts	RLEP	None	5.5.1	
Mixed Waste Impacts	RLEP	IEHB	5.5.2	
Transmission System Impacts	RLEP	None	5.6	
Terrestrial Ecosystems	RLEP	None	5.6.1	
Aquatic Ecosystems	RLEP	None	5.6.2	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Impacts to Man	RLEP	None	5.6.3	
Uranium Fuel Cycle Impacts	RLEP	None	5.7	
Socioeconomic Impacts	RLEP	SPSB	5.8	
Physical Impacts of Station Operation	RLEP	None	5.8.1	
Social and Economic Impacts of Station Operation	RLEP	SPSB	5.8.2	
Environmental Justice Impacts	RLEP	SPSB	5.8.3	
Decommissioning	RLEP	None	5.9	
Measures and Controls to Limit Adverse Impacts during Operation	RLEP	None	5.10	
Environmental Measurements and Monitoring Programs	RLEP	None	6.0	
Thermal Monitoring	RLEP	None	6.1	
Hydrological Monitoring	RLEP	EMEB	6.3	
Meteorological Monitoring	RLEP	SPSB	6.4	
Ecological Monitoring	RLEP	None	6.5	
Terrestrial Ecology and Land Use	RLEP	None	6.5.1	
Aquatic Ecology	RLEP	None	6.5.2	
Chemical Monitoring	RLEP	None	6.6	
Summary of Monitoring Programs	RLEP	None	6.7	
Environmental Impacts of Postulated Accidents Involving Radioactive Materials	RLEP	SPSB	7.0	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Severe Accidents	RLEP	SPSB	7.2	
Transportation Accidents	RLEP	None	7.4	
Need for Power	RLEP	None	8.0	Need not be included unless applicant seeks approval.
Description of Power System	RLEP	None	8.1	Need not be included unless applicant seeks approval.
Power Demand	RLEP	None	8.2	Need not be included unless applicant seeks approval.
Power and Energy Requirements	RLEP	None	8.2.1	Need not be included unless applicant seeks approval.
Factors Affecting Growth of Demand	RLEP	None	8.2.2	Need not be included unless applicant seeks approval.
Power Supply	RLEP	None	8.3	Need not be included unless applicant seeks approval.
Assessment of Need for Power	RLEP	None	8.4	Need not be included unless applicant seeks approval.
Alternatives to the Proposed Action	RLEP	None	9.0	Includes unresolved conflicts concerning alternative uses of available resources. See 10 CFR 51.45(b)(3).
No-Action Alternatives	RLEP	None	9.1	
Energy Alternatives	RLEP	None	9.2	
Alternatives Not Requiring New Generating Capacity	RLEP	None	9.2.1	
Alternatives Requiring New Generating Capacity	RLEP	None	9.2.2	Should also include consideration of a combination of different alternatives.
Assessment of Alternative Energy Sources and Systems	RLEP	None	9.2.3	
Alternative Sites	RLEP	None	9.3	
Alternative Plant and Transmission Systems	RLEP	None	9.4	
Heat Dissipation Systems	RLEP	None	9.4.1	

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Circulating Water Systems	RLEP	None	9.4.2	
Transmission Systems	RLEP	None	9.4.3	Environmental Justice should also be considered in evaluation.
Environmental Consequences of the Proposed Action	RLEP	None	10.0	
Unavoidable Adverse Environmental Impacts	RLEP	None	10.1	
Irreversible and Irretrievable Commitments of Resources	RLEP	None	10.2	
Relationship Between Short-Term Uses and Long-Term Productivity of the Human Environment	RLEP	None	10.3	
Benefit-Cost Balance	RLEP	None	10.4	Need not be included unless applicant seeks approval.
Benefits	RLEP	None	10.4.1	Need not be included unless applicant seeks approval.
Costs	RLEP	None	10.4.2	Need not be included unless applicant seeks approval.
Summary	RLEP	None	10.4.3	Need not be included unless applicant seeks approval.

Area of Review	Primary Review Branch	Secondary Review Branch	SRP Section	Comment/Additional Guidance
Primary Review Branch: IEHB				
Radiation Exposure to Construction Workers	IEHB	None	4.5	See Note 1. Also: references to 10 CFR 20.1205 should be changed to 10 CFR 20.1502. Footnote should be added after the term "construction worker" which states: "During the ESP stage, the term 'construction worker' also refers to all other personnel on the proposed site who may be performing surveys, taking measurements, clearing land, etc."
Radiological Impacts of Normal Operation	IEHB	RLEP	5.4	
Exposure Pathways	IEHB	RLEP	5.4.1	10 CFR Part 50 Appendix I is applicable at COL stage. If ER provides adequate information on dose receptors and pathways, analysis can be performed at ESP stage; otherwise, it will be deferred to COL stage.
Radiation doses to Members of the Public	IEHB	RLEP	5.4.2	
Impacts to Man	IEHB	RLEP	5.4.3	
Impacts to Biota other than Members of the Public	IEHB	RLEP	5.4.4	
Radiological Monitoring	IEHB	RLEP	6.2	If ER provides adequate information on dose receptors and pathways, analysis can be performed at ESP stage; otherwise, it will be deferred to COL stage.
Primary Review Branch: SPSB				
Design Basis Accidents	SPSB	None	7.1	
Severe Accident Mitigation Design Alternatives	SPSB	None	7.3	Requires detailed design information and design-specific probabilistic risk assessment. If not available in ESP application, review and staff findings on these sections will be deferred to COL stage.

NOTE 1: The following paragraphs address the radiation protection/dosimetry/site monitoring related responsibilities as they pertain to an ESP site.

Where a proposed ESP site is not adjacent to or near an existing operating reactor or materials facility and where it is apparent that no individual, in the course of employment related to a proposed ESP site, will exceed applicable exposure limits for members of the public, then the ESP application need not address radiological assessment or protection for workers associated with the proposed site (or with construction of a reactor at that site).

If the proposed site is adjacent to or near an existing operating reactor or materials facility, and

- 1) the ESP applicant and the other facility licensee are the same, that licensee is responsible for ensuring that the radiation dose to members of the public (including workers associated with the proposed site or any facility that might be constructed on the proposed site) will comply with the applicable requirements of 10 CFR Part 20. The licensee (ESP applicant) will also be responsible for providing, in the Environmental Report that supports the ESP application, the impact analysis with respect to construction worker doses as discussed in Section 4.5 (Radiation Exposure to Construction Workers) of NUREG-1555.
- 2) the ESP applicant and the other facility licensee are not the same, the licensee for the other facility alone is responsible for ensuring that dose to members of the public at the proposed site will comply with the applicable requirements of 10 CFR Part 20. The ESP applicant, however, will be responsible for providing, in the Environmental Report in Section 4.5 (Radiation Exposure to Construction Workers) of NUREG-1555.